

CLAIM LISTING:

1. (Amended) A lithographic projection apparatus comprising:
 - a radiation system to supply a projection beam of electromagnetic radiation having a wavelength of 250nm or less;
 - a support structure adapted to support patterning structure which can be used to pattern the projection beam according to a desired pattern;
 - a substrate table to hold a substrate;
 - a projection system to project the patterned beam onto a target portion of the substrate; and
 - a gas supply constructed and arranged to supply a purge gas to a space in said apparatus, said space containing an optical component, wherein said purge gas comprises an oxygen-containing species selected from water, nitrogen oxide and oxygen-containing hydrocarbons;

wherein said purge gas comprises an inert gas, and wherein the total amount of oxygen-containing species present in said purge gas is from 1 ppb to 10 ppm by volume.
2. (Cancelled)
3. (Amended) An apparatus as in ~~claim 2~~ claim 1, wherein the inert gas comprises helium, argon, nitrogen or a mixture thereof.
4. (Original) An apparatus according to claim 1, wherein said oxygen-containing species is selected from water, nitrogen oxide, alcohols, alkanones and ethers.
5. (Original) An apparatus according to claim 1, wherein said space is substantially evacuated, and wherein a total partial pressure of the oxygen-containing species in said space is from 1×10^{-4} Pa to 1 Pa.
6. (Original) An apparatus according to claim 1, which apparatus further comprises a further supply of electromagnetic radiation having a wavelength of 250nm or less and arranged to supply such radiation onto at least one of said optical component and said patterning structure.

7. (Original) An apparatus according to claim 1, which apparatus further comprises a separate cleaning unit to clean patterning structure comprising a space, a radiation source for supplying and directing into said space radiation having wavelengths of 250 nm or less and a gas supply for supplying a purge gas into said space, wherein said purge gas comprises an oxygen-containing species selected from water, nitrogen oxide and oxygen-containing hydrocarbons.

8. (Amended) A device manufacturing method comprising:

projecting a patterned beam of radiation having a wavelength of 250nm or less onto a target portion of a layer of radiation-sensitive material on a substrate, and

cleaning an optical component for use in the apparatus by irradiating a space containing said optical component with radiation having a wavelength of less than 250 nm in the presence of an oxygen-containing species selected from water, nitrogen oxide and oxygen-containing hydrocarbons;

wherein the total amount of oxygen-containing species present is from 1 ppb to 10 ppm by volume.

9. (Amended) A method according to ~~claim 7~~ claim 8, further comprising the step of supplying to said space containing said optical component and/or said patterning structure a purge gas comprising an inert gas, preferably helium, argon, nitrogen or a mixture thereof, ~~and wherein the total amount of oxygen containing species present in said purge gas is from 1 ppb to 10 ppm by volume.~~

10. (Amended) A method according to ~~claim 7~~ claim 8, further comprising supplying to said space containing said optical component and/or said patterning structure a purge gas comprising oxygen-containing species selected from water, nitrogen oxide, alcohols, alkanones and ethers.

11. (Amended) A method according to ~~claim 7~~ claim 8, wherein said cleaning step is carried out separately from said step of projecting the patterned beam of radiation.

12. (Amended) A device manufactured according to the method of ~~claim 7~~ claim 8.

13. (Amended) A cleaning unit for cleaning contaminated objects comprising a space, a radiation source for supplying and directing into said space radiation having wavelengths of 250 nm or less and a gas supply for supplying a purge gas into said space, wherein said purge gas comprises an oxygen-containing species selected from water, nitrogen oxide and oxygen-containing hydrocarbons and wherein the total amount of oxygen-containing species present in said purge gas is from 1 ppb to 10 ppm by volume.

14. (Amended) A method of cleaning contaminated objects comprising: directing radiation having a wavelength of 250 nm or less onto an object in a space, and

supplying a purge gas to said space, wherein the purge gas comprises an oxygen-containing species selected from water, nitrogen oxide and oxygen-containing hydrocarbons; and

wherein the total amount of oxygen-containing species present in said purge gas is from 1 ppb to 10 ppm by volume.